EX PARTE

March 24,1997

Mr. William F. Caton
Secretary
Federal Communications Commission
1919 M Street, NW, Room 222
Washington, D.C. 20554

Re: Ex Parte
CC Docket No.96-262

Dear Mr. Caton:

On Monday, March 24, 1997, the attached letter, tables and one machine readable disk were sent to Anthony Bush of the FCC Staff. This material is a detailed, historical, analysis of input inflation by Christensen Associates, Inc. used in preparation of several Total Factor Productivity Studies including those filed for the United States Telephone Association in CC Docket No. 94-1. This material is being provided at the request of Dr. Bush.

Respectfully submitted

Frank McKennedy
Director - Legal and Regulatory Affairs

cc: Anthony Bush

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March 24, 1997

Mr. Anthony Bush
Federal Communications Commission
1919 M Street, N. W. Room 614
Washington, D. C. 20554

Dear Mr. Bush:

Attached are worksheets and a machine readable disk with Lotus spreadsheets containing a complete historical analysis of input inflation and its components that you requested during our ex parte contact with you last Wednesday, March 19, 1997.

In CC Docket No. 94-1, extensive back-up data from several telecommunications productivity studies have been placed on the public record in response to requests for data submitted by AT&T and Ad Hoc as follows:[1]

1. USTA ex parte, CC Docket No. 94-1, Letter from M. McDermott, L. Kent, C. Cosson to W. Caton, Secretary, FCC, dated February 23, 1996, responding to AT&T's January 31, 1996 request for data and supplemental request dated February 7, 1996;

2. USTA ex parte, CC Docket No. 94-1, Letter from M. McDermott, L. Kent, C. Cosson to W. Caton, Secretary, FCC, dated February 23, 1996, responding to Ad Hoc's January 30, 1996 request for data. (See also spreadsheets entitled PRICE.WK3 and BELLCORE.WK3 filed with the Secretary of the FCC on February 23, 1996);

3. USTA ex parte, CC Docket No. 94-1, Letter from C. Cosson to W. Caton, Secretary, FCC, dated February 8, 1996, providing work papers and Lotus 1-2-3 spreadsheets underlying USTA's Simplified TFP Method filed as part of USTA's Comments in CC Docket No. 94-1 on January 16, 1996.

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[1] These were the historical telecommunications studies on which USTA relied in developing the ex parte dated February 1, 1995, CC Docket No. 94-1, "An Input Price Adjustment Would Be an Inappropriate Addition to the LEC Price Cap Formula: Affidavit of Dr. Laurits R. Christensen on Behalf of the United States Telephone."

This detailed back-up data on input inflation and its components is a part of the underlying data for each of the following productivity studies:

1. L. R. Christensen, C. C. Christensen, and P. E. Schoech, "Total Factor Productivity in the Bell System, 1947-1979, Christensen Associates, September 1981 [Bell System Study].

2. Bell Communications Research, Econometric Estimation of the Marginal Operating Cost of Interstate Access. May 1987 (utilizing data, methods and TFP results developed by Christensen Assoc.) [Bellcore Study].

3. L. R. Christensen, "Total Productivity Growth in the U.S. Telecommunications Industry and the U.S. Economy, 1951-1987, Schedule 3 to Direct Testimony, Case No. PU-2320-90-149, North Dakota Public Service Commission, 1990 [Industry Study].

4. L. R. Christensen, P. E. Schoech, and M. E. Meitzen, "Total Factor Productivity Methods for Local Exchange Carrier Price Cap Plans, including Response to Appendix F: The Appropriate Data Set to Use in Analyzing Telephone Industry Input Price," Attachment A to USTA Comments, CC Docket No. 94-1, filed January 16, 1996; and "Total Factor Productivity Review Plan," Attachment B to USTA Comments, CC Docket No. 94-1, filed January 16, 1996 [collectively, LEC Study Update]. (These studies are dated December 18, 1995, the scheduled filing date, but were not actually filed until the Commission opened on January 16, 1996 due to government closing)

Also, paper copies and spreadsheet versions of the data underlying the most recent update of the LEC total factor productivity study relied upon by USTA have also been made a part of the public record. This study utilizes publicly available data and is contained in a single Lotus 1-2-3 spreadsheet using a format and detailed documentation of sources and calculations patterned after the Commission's Tariff Review Plan. This data was filed and documented in:

5. L. R. Christensen, P. E. Schoech, and M. E. Meitzen, "Updated Results for the Simplified TFPRP Model and Response to Productivity Questions in FCC's Access Reform Proceeding, Attachment 5 to USTA Comments, CC Docket Nos. 94-1 and 96-262, filed January 29, 1997; and "Total Factor Productivity Review Plan," Attachment 10 to USTA's Reply Comments, CC Docket Nos. 94-1 and 96-262, filed February 14, 1997 [collectively, Simplified LEC Study Update].

As you know, these different TFP studies were all performed by Christensen Associates and have the basic Christensen TFP approach in common. However, there

are a few differences among the studies. For example, the Bell System Study measures TFP for the Bell System in total, i.e., AT&T and its local operating telephone companies. The Industry Study was for the entire U.S. telecommunications industry (SIC 481), including local exchange carriers and interexchange carriers. Both the Bell System Study and the LEC Update Study utilized internal company data that do not meet the standard of publicly available, verifiable data established by the Commission in CC Docket No. 94-1. The Simplified LEC Study Update utilizes public data and simplified methods that comply with standards established by the Commission.

The most reliable data for application in the Access Reform proceeding can be found in the Simplified LEC Study Update filed earlier this year with USTA's Comments and Replies in CC Docket No. 96-262. USTA recommends use of the LEC TFP results (and to the extent relevant, other TFP-related data, such as LEC input inflation) from the most recent five years of the Total Factor Productivity Review Plan (TFPRP) model.

The following table presents data from the TFPRP Model and the most recent comparable data from the U.S. Department of Labor, Bureau of Labor Statistics, MultiFactor Productivity Study for the U.S. Private Business Sector.

	U.S. Input Inflation[2]	**LEC Input Inflation**	**Difference (U.S. minus LEC)**
1989-95 (entire study period)	**3.2%**	**2.8%**	**0.4%**
1991-95 (most recent 5 years)	**3.1%**	**3.8%**	**-0.7%**

Thus, the data do not support, and USTA is opposed to, an input inflation differential as an "add-on" to the productivity offset.

USTA has prepared a table of the input inflation data from each of the five telecommunications studies referenced above. This table is also in the machine readable disk in a spreadsheet, Lotus 1-2-3 format, titled INPUTPR.WK3.

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[2] 1995 data for U.S. input inflation was not available from the U.S. Department of Labor. For the 1989-95 time period, the above calculation used the average of 1989-94. For the 1991-95 time period, the above calculation used the average of 1991-94.

If you have any questions or need addtional data please give me a call at (202) 326-7266.

Respectfully submitted,

Frank McKennedy
Director - Legal and Regulatory Affairs

Attachments

CC: Mr. James Schlichting

SOURCE		ANNUAL GROWTH RATE			
		Capital Input Price	Labor Input Price	Materials Input Price	TOTAL INPUT PRICE
Bell System Study	1948	11.22%	8.36%	7.12%	9.3%
Bell System Study	1949	2.75%	4.57%	-0.78%	3.2%
Bell System Study	1950	7.33%	3.55%	2.64%	5.1%
Bell System Study	1951	12.49%	5.78%	6.39%	8.8%
Bell System Study	1952	12.68%	5.83%	1.57%	8.6%
Bell System Study	1953	1.69%	3.41%	1.82%	2.4%
Bell System Study	1954	0.51%	3.64%	1.38%	1.9%
Bell System Study	1955	5.72%	5.79%	2.31%	5.4%
Bell System Study	1956	2.27%	0.48%	3.30%	1.7%
Bell System Study	1957	-7.10%	4.54%	3.69%	-1.1%
Bell System Study	1958	6.27%	0.31%	1.49%	3.3%
Bell System Study	1959	4.20%	7.77%	2.19%	5.4%
Bell System Study	1960	5.01%	4.28%	1.67%	4.2%
Bell System Study	1961	4.36%	4.10%	0.94%	3.9%
Bell System Study	1962	1.45%	3.57%	1.98%	2.2%
Bell System Study	1963	-0.62%	3.57%	1.37%	1.0%
Bell System Study	1964	6.69%	5.06%	4.77%	6.0%
Bell System Study	1965	-1.56%	3.61%	2.04%	0.5%
Bell System Study	1966	-1.58%	4.76%	3.03%	1.1%
Bell System Study	1967	-0.40%	5.45%	2.84%	1.9%
Bell System Study	1968	4.02%	4.78%	3.83%	4.2%
Bell System Study	1969	-3.52%	9.37%	5.07%	2.1%
Bell System Study	1970	0.30%	8.32%	5.26%	3.8%
Bell System Study	1971	-0.80%	10.53%	4.91%	4.2%
Bell System Study	1972	4.78%	13.37%	3.89%	8.0%
Bell System Study	1973	-8.45%	9.30%	5.64%	0.6%
Bell System Study	1974	-0.21%	10.59%	10.81%	5.9%
Bell System Study	1975	17.24%	12.62%	9.45%	14.2%
Bell System Study	1976	11.01%	12.02%	5.14%	10.7%
Bell System Study	1977	6.67%	5.68%	5.55%	6.1%
Bell System Study	1978	7.82%	7.51%	7.23%	7.6%
Bell System Study	1979	4.70%	9.68%	7.79%	7.2%
Bellcore Study	1980	20.37%	9.59%	8.69%	14.6%
Bellcore Study	1981	12.00%	11.87%	9.28%	11.6%
Bellcore Study	1982	8.80%	18.60%	5.90%	12.1%
Industry Study	1983	16.99%	12.09%	3.82%	12.8%
Industry Study	1984	5.31%	-2.99%	3.59%	1.8%
LEC Study Update	1985	-5.39%	5.44%	3.45%	0.1%
LEC Study Update	1986	-2.40%	5.36%	2.82%	1.3%
LEC Study Update	1987	2.82%	-0.81%	3.05%	1.7%
LEC Study Update	1988	-8.51%	-0.56%	3.83%	-3.2%
Simplified LEC Study Update	1989	-8.95%	1.97%	4.40%	-3.0%
Simplified LEC Study Update	1990	2.83%	4.55%	4.43%	3.7%
Simplified LEC Study Update	1991	1.18%	7.55%	3.95%	3.5%
Simplified LEC Study Update	1992	6.34%	5.54%	3.13%	5.4%
Simplified LEC Study Update	1993	3.33%	10.75%	2.93%	5.1%
Simplified LEC Study Update	1994	0.91%	6.74%	2.69%	2.8%
Simplified LEC Study Update	1995	1.22%	3.79%	2.49%	2.1%

SOURCE		ANNUAL GROWTH RATE			
		Capital Input Quant.	Labor Input Quant.	Materials Input Quant.	TOTAL INPUT QUANTITY
Bell System Study	1948	7.03%	4.94%	13.20%	6.7%
Bell System Study	1949	10.33%	2.40%	7.21%	6.4%
Bell System Study	1950	5.63%	0.58%	1.59%	2.7%
Bell System Study	1951	3.02%	4.44%	5.20%	3.9%
Bell System Study	1952	3.37%	4.87%	9.06%	4.6%
Bell System Study	1953	4.49%	4.31%	2.66%	4.2%
Bell System Study	1954	6.18%	0.98%	10.71%	4.4%
Bell System Study	1955	6.20%	0.05%	8.94%	3.9%
Bell System Study	1956	6.18%	7.49%	10.70%	7.2%
Bell System Study	1957	6.76%	-3.04%	-1.35%	1.8%
Bell System Study	1958	7.78%	0.08%	-4.89%	3.3%
Bell System Study	1959	6.02%	-4.04%	8.80%	2.4%
Bell System Study	1960	4.64%	-0.07%	6.45%	5.3%
Bell System Study	1961	5.34%	-0.93%	8.40%	-9.6%
Bell System Study	1962	5.56%	0.30%	3.24%	14.4%
Bell System Study	1963	6.01%	-0.10%	8.82%	4.3%
Bell System Study	1964	5.44%	3.09%	1.46%	4.4%
Bell System Study	1965	6.13%	3.38%	10.58%	5.6%
Bell System Study	1966	6.24%	4.02%	5.21%	5.4%
Bell System Study	1967	6.13%	1.75%	2.15%	4.2%
Bell System Study	1968	5.29%	1.61%	5.47%	4.1%
Bell System Study	1969	5.30%	5.40%	9.36%	5.8%
Bell System Study	1970	6.38%	5.17%	8.12%	6.2%
Bell System Study	1971	6.29%	1.10%	4.55%	4.1%
Bell System Study	1972	6.07%	0.19%	4.71%	3.6%
Bell System Study	1973	6.24%	1.66%	6.19%	4.4%
Bell System Study	1974	6.36%	0.75%	-0.45%	3.1%
Bell System Study	1975	5.64%	-0.46%	0.71%	2.4%
Bell System Study	1976	4.11%	-1.35%	10.50%	2.8%
Bell System Study	1977	3.19%	4.12%	8.61%	4.3%
Bell System Study	1978	3.40%	4.28%	8.61%	4.5%
Bell System Study	1979	4.03%	2.13%	8.51%	4.7%
Bellcore Study	1980	4.46%	1.38%	6.26%	3.5%
Bellcore Study	1981	4.58%	1.51%	8.46%	4.0%
Bellcore Study	1982	3.12%	-1.93%	1.36%	1.0%
Industry Study	1983	20.92%	2.02%	2.55%	-2.7%
Industry Study	1984	8.76%	0.22%	10.53%	3.9%
LEC Study Update	1985	3.93%	-5.77%	7.16%	1.3%
LEC Study Update	1986	5.39%	-7.23%	0.87%	0.2%
LEC Study Update	1987	4.53%	0.54%	-1.63%	1.9%
LEC Study Update	1988	3.68%	1.25%	4.28%	3.1%
Simplified LEC Study Update	1989	3.83%	-1.56%	6.22%	2.9%
Simplified LEC Study Update	1990	2.49%	-3.11%	-1.48%	0.0%
Simplified LEC Study Update	1991	2.88%	-4.87%	2.47%	0.7%
Simplified LEC Study Update	1992	2.44%	-4.62%	-6.55%	-1.5%
Simplified LEC Study Update	1993	2.53%	-4.37%	0.46%	0.3%
Simplified LEC Study Update	1994	2.26%	-5.60%	7.11%	1.4%
Simplified LEC Study Update	1995	2.00%	-6.87%	3.65%	0.3%

SOURCE		AVERAGE ANNUAL SHARES		
		Capital Cost Share	Labor Cost Share	Materials Cost Share
Bell System Study	1948	40.00%	48.95%	11.05%
Bell System Study	1949	41.15%	47.70%	11.15%
Bell System Study	1950	43.00%	46.20%	10.80%
Bell System Study	1951	44.70%	44.75%	10.50%
Bell System Study	1952	46.00%	43.70%	10.30%
Bell System Study	1953	46.55%	43.40%	10.05%
Bell System Study	1954	46.50%	43.20%	10.20%
Bell System Study	1955	47.20%	42.10%	10.65%
Bell System Study	1956	47.75%	41.20%	11.05%
Bell System Study	1957	47.40%	41.20%	11.40%
Bell System Study	1958	48.95%	40.10%	10.95%
Bell System Study	1959	51.40%	38.05%	10.50%
Bell System Study	1960	52.55%	36.70%	10.70%
Bell System Study	1961	53.75%	35.35%	10.90%
Bell System Study	1962	54.75%	34.30%	11.00%
Bell System Study	1963	55.10%	33.65%	11.25%
Bell System Study	1964	55.65%	32.95%	11.35%
Bell System Study	1965	55.75%	32.75%	11.50%
Bell System Study	1966	54.80%	33.30%	11.90%
Bell System Study	1967	54.20%	33.90%	11.95%
Bell System Study	1968	54.35%	33.75%	11.95%
Bell System Study	1969	53.00%	34.60%	12.40%
Bell System Study	1970	50.55%	36.45%	13.00%
Bell System Study	1971	49.00%	37.70%	13.30%
Bell System Study	1972	48.10%	38.70%	13.20%
Bell System Study	1973	46.25%	40.30%	13.45%
Bell System Study	1974	44.00%	42.00%	14.00%
Bell System Study	1975	44.80%	41.55%	13.65%
Bell System Study	1976	46.60%	40.05%	13.35%
Bell System Study	1977	46.85%	39.40%	13.75%
Bell System Study	1978	46.50%	39.20%	14.30%
Bell System Study	1979	45.60%	39.50%	14.90%
Bellcore Study	1980	48.01%	38.85%	13.14%
Bellcore Study	1981	49.87%	37.05%	13.08%
Bellcore Study	1982	49.84%	37.32%	12.85%
Industry Study	1983	42.50%	41.45%	16.00%
Industry Study	1984	45.50%	38.70%	15.80%
LEC Study Update	1985	45.25%	33.94%	20.81%
LEC Study Update	1986	44.92%	33.08%	22.01%
LEC Study Update	1987	46.11%	31.89%	22.00%
LEC Study Update	1988	45.90%	31.41%	22.70%
Simplified LEC Study Update	1989	50.23%	27.00%	22.77%
Simplified LEC Study Update	1990	49.35%	26.75%	23.90%
Simplified LEC Study Update	1991	49.70%	26.24%	24.06%
Simplified LEC Study Update	1992	50.89%	25.65%	23.46%
Simplified LEC Study Update	1993	52.24%	25.39%	22.38%
Simplified LEC Study Update	1994	52.09%	25.13%	22.79%
Simplified LEC Study Update	1995	52.04%	24.09%	23.88%

Attachment A

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